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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,033	12/12/2005	William Davidson	054054/300289	5416

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EXAMINER	
JIANG, YONG HANG	
ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,033	DAVIDSON ET AL.	
	Examiner	Art Unit	
	YONG HANG JIANG	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 May 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed 5/13/2008 has been entered. Claims 1-15 are amended. Claims 16-20 are newly added.

Response to Arguments

2. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 4, 6, 9 and 16 recite the limitation "the interval for the repeat transmission of the response signals are random or pseudo-random in length and are based...on a value of the counter....", this limitation renders the claims indefinite because any value generated "based on a value of a counter" cannot be random. Such a value can be considered a pseudo-random number.

Claims 2-3, 5, 7-8, 10-15, and 17-20 depend on claims 1, 4, 6, 9, and 16 respectively; therefore they suffer the same deficiency.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 3, 4, 6, 8, 10-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. (US 5,883,582), and further in view of Barrett (US 4,471,345).

Regarding claims 1, 4, 6, and 8, Bowers discloses an identification system comprising:

a reader (interrogator 20, Figure 2) including a transmitter (22) for transmitting a reader signal; and

a plurality of transponders (via RFID tags 10, Col. 3, line 66 - Col. 4, line 25), each transponder including a counter (via timer circuit 19, Col. 5, line 35 - Col. 6, line 2), a receiver for receiving the reader signal and a transmitter for generating a response signal containing data that identifies the transponder (via antenna 12, See figure 1 and Col. 4, lines 1-3),

wherein at least one of the plurality of transponders is adapted to repeat the transmission of the response signal (via each RFID tag transits information periodically back to the interrogator based on random manufacturing tolerances in electrical components, see the Abstract) and are based at least in part on a value of the counter (retransmission established by timer circuit 19, Col. 5, line 43-46) when the reader signal is received (via timer circuit 19 starts counting when RFID tag 10 is powered up, Col. 5, lines 28-34). (See Col. 3, line 60 - Col. 6, line 2)

But Bowers does not disclose the interval of the repeat transmission of the response signal are random or pseudo-random in length.

Barrett teaches an RFID communication system with tags utilizing random response time slots to avoid interference. (See the Abstract)

From the teachings of Barrett, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the transponders of Bowers to include random or pseudo-random intervals for the repeat transmissions of the response signals in order to avoid interference.

Regarding claim 16, Bowers discloses an identification system comprising:

a reader (interrogator 20, Figure 2) including a transmitter (22) for transmitting a reader signal; and a plurality of transponders (via RFID tags 10, Col. 3, line 66 - Col. 4, line 25), each transponder including a counter driven by a clock (via timer circuit 19, Col. 5, line 35 - Col. 6, line 2), a receiver for receiving the reader signal and a transmitter for generating a response signal containing data that identifies the transponder (via antenna 12, see figure and Col. 4, lines 1-3), wherein at least one of the plurality of transponders is adapted to repeat the transmission of the response signal (via each RFID tag transits information periodically back to the interrogator based on random manufacturing tolerances in electrical components, see the Abstract) and are based at least in part on a value of the counter (retransmission established by timer circuit 19, Col. 5, line 43-46) when the reader signal is received (via timer circuit 19 starts counting when RFID tag 10 is powered up, Col. 5, lines 28-34), wherein the clock has a period, and wherein the value of the counter is based at least in part on the period of the clock (via timer circuit 19 has a fixed length or period, Col. 5, lines 35-52).

But Bowers does not disclose the interval of the repeat transmission of the response signal are random or pseudo-random in length.

Barrett teaches an RFID communication system with tags utilizing random response time slots to avoid interference. (See the Abstract)

From the teachings of Barrett, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the transponders of Bowers to include random or pseudo-random intervals for the repeat transmissions of the response signals in order to avoid interference.

Regarding claims 3 and 18, Bowers discloses the counter is part of an RFID transponder integrated circuit. (See Figure 1, and Col. 5, lines 35-38)

Regarding claims 10, 12, 14, and 19, the combination of Bowers and Barrett discloses the structural elements of the claimed invention wherein Barrett discloses the counter is routed to a latch/transmit shift register (via binary sequence circuit consisting of flip-flops 204, 205, and 206) when the reader signal is received by the transponder, the value of the counter is stored in the latch/transmit shift register.

Regarding claims 11, 13, 15, and 20, Barrett discloses the latch/transmit shift register provides a random number (via a random number from the flip flop 204) for a random number generator to affect the randomness of the intervals between the response signals. (See Col. 14, line 44-Col. 15, line 2)

8. Claims 2, 5, 7, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. in view of Barrett, and further in view of Burstein et al. (US 5,744,990).

Regarding claims 2, 5, 7, and 17, Bowers discloses the structural elements of the claimed invention but fails to disclose the counter is reset upon activation of a power-on reset (POR) circuit.

Burstein et al. teach the use of a power on reset circuit comprising a capacitor (n5) to store charge to a predetermined value (one pmos threshold below a supply voltage) to activate a POR circuit, the circuit is used in digital systems to ensure the

digital system is operating with a stable power supply. Once the power supply has stabilized within its desired operating range, a POR signal is generated to initialize various components in the system, such as flip-flops, memory devices, and clock generators. (See the Abstract, Col. 1, lines 5-25; and Col. 5, line 53-Col. 6, line 10)

From the teachings of Burstein et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Bowers to include a POR circuit to send a signal to reset the counter in order to ensure the transponder is operating with a desired power supply for proper operation.

Claim 9 is equivalent to the combination of claims 1 and 2; therefore it is rejected for the same reasons above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONG HANG JIANG whose telephone number is (571)270-3024. The examiner can normally be reached on M-F 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yong Hang Jiang/
Examiner, Art Unit 2612

/Brian A Zimmerman/
Supervisory Patent Examiner, Art Unit 2612